CLAIMS

What is claimed is:

1.   A computer system comprising:

a network interface coupled with a network to receive an increased network load comprising load portions for each of an increased plurality of connections with electronic network access devices;

a power state selection system coupled with the network interface to receive at least a representation of the increased network load, to select a higher power state that consumes more power by comparing the representation with a predetermined threshold to determine that the representation is greater than the threshold, and to assert a power state selection signal that corresponds to the higher power state;

a power state implementation system coupled with the power state selection system to receive the asserted power state selection signal and to assert a corresponding power state implementation signal;

a processor coupled with the power state implementation system to receive the power state implementation signal, to switch to the higher power state, and to execute operations associated with the receive network load at the higher power state; and

a power source coupled with the computer system to supply an increased amount of power to the computer system to power the processor in the higher power state.

2. The computer system of claim 1:

wherein the increased network load comprises a load portion for an un-secured connection and a load portion for a secured connection; and

wherein the representation comprises a representation portion for the un-secured connection and a larger representation portion for the secured connection.

3. The computer system of claim 1, wherein the power state selection system comprises a plurality of preprogrammed thresholds that each correspond to a predetermined operational power state for the processor.

4. A computer system comprising:

a network interface coupled with a network to receive a network processing load associated with a plurality of network access devices;

a power management system coupled with the network interface to receive a representation of the network processing load, to select a power state of a plurality of operational power states based on the representation, and to assert the power state;

hardware having the plurality of operational power states coupled with the power management system to receive the asserted power state, to switch to the asserted power state, to receive an amount of power that depends on the asserted power state from a power source, and to execute operations associated with the received network load at the asserted power state.

5.   The computer system of claim 4:

wherein the computer system is a server;

wherein the power management system comprises:

a power state selection system coupled with the network interface to receive the representation, to select the power state by comparing the representation with a threshold, and to assert a power state selection signal; and

a power state implementation system coupled with the power state selection system to receive the power state selection signal and to assert a power state implementation signal; and

wherein the hardware comprises a processor coupled with the power state implementation system to receive the asserted power state implementation signal, to switch to the asserted power state, to receive an amount of power that depends on the power state from a non-battery power source, and to execute operations associated with the received network load at the power state.

6.   The computer system of claim 4:

wherein the hardware comprises a processor having a plurality of predetermined operational power states that each have a different core operating frequency; and

wherein the power management system is operable to select one of the plurality of predetermined operational power states for the processor and to implement the selected power state on the hardware.

7. The computer system of claim 6, wherein the processor comprises a laptop processor.

8. The computer system of claim 4, wherein the hardware comprises a processor having a high power state that has a high operational clock frequency and a low power state that has a low operational clock frequency.

9. A power state selection system to receive a representation of a network processing load associated with a plurality of network access devices, to select a power state based on the representation, and to assert a power state selection signal corresponding to the selected power state.

10. The power state selection system of claim 9, wherein the representation of the network processing load comprises an indication of a number of client connections.

11. The power state selection system of claim 9, wherein the representation of the network processing load comprises an indication of an activity of a processor.

12. The power state selection system of claim 9, further comprising logic to select by comparing the representation with a predetermined threshold.

13. The power state selection system of claim 9, wherein the power state selection signal identifies a bus ratio selection signal corresponding to a predetermined bus ratio of a processor.

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14. The power state selection system of claim 9, further comprising:

a power state implementation system coupled with the power state selection system to receive the power state selection signal and to assert a power state implementation signal; and

hardware coupled with the power state implementation system to receive the power state implementation signal and to switch to a power state corresponding to the power state implementation signal.

15. The power state selection system of claim 14:

wherein the power state implementation system comprises an Advanced Configuration And Power Interface power state implementation system; and

wherein the hardware comprises a processor to switch from a first operational power state comprising a first core voltage and a first core frequency to a second operational power state comprising a second core voltage that is different than the first and a second core frequency that is different than the first.

16. A power state selection system to direct a processor of a server into one of a plurality of executing power consuming states based on a change in processing load received from a network that comprises a changed number of connections from client network access devices.

17. The power state selection system of claim 16, implemented as a software application communicatively coupled with an operating system that directs power management.

18.   The power state selection system of claim 16, implemented as a software

application communicatively coupled with an Advanced Configuration And

Power Interface power driver for the processor.

19.   The power state selection system of claim 16, implemented as logic within a

server operating system.

20.   A method comprising:

receiving a network processing load corresponding to a plurality of clients

from a network;

selecting a higher power state for a processor by comparing a representation of

the network processing load with a predetermined threshold and determining

that the representation is greater than the threshold; and

asserting a power state selection signal that indicates the selected higher power

state.

21.   The method of claim 20, further comprising, before asserting determining

whether the selected power state is different than a current power state.

22.   A processor to be placed in the higher power state by the method of claim 20.

23.   A machine-readable medium having stored thereon data representing

instructions that if executed cause a machine to:

receive a processing load from a plurality of networked clients;

select a lower power state for hardware by comparing a representation of the load with a predetermined threshold to determine that the representation is lower than the threshold; and

assert a power state selection signal corresponding to the selected power state.

24. The machine-readable medium of claim 23, wherein the instructions to select further comprise instructions that if executed cause the machine to select a predetermined operational power state for a processor of the hardware.

25. The machine-readable medium of claim 23, wherein the instructions to assert further comprise instructions that if executed cause the machine to assert a power state selection signal operable to cause an Advanced Configuration And Power Interface implementation system to implement the selected power state on a processor of the hardware.

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